

Krishnan  
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FILE 'REGISTRY' ENTERED AT 14:58:57 ON 04 APR 2002  
E WATER/CN

L1 1 S E3

E SODIUM HYALURONATE/CN 5  
L2 1 S E3

Key Terms  
Claims 1-3, 9-11

FILE 'CAPLUS' ENTERED AT 15:01:05 ON 04 APR 2002

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON WATER/CN  
L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON "SODIUM HYALURONATE"/CN

L3 686 SEA FILE=CAPLUS ABB=ON PLU=ON (L1 OR WATER OR H2O) AND  
(L2 OR (NA OR SODIUM) (W)HYALURONATE)  
L4 21 SEA FILE=CAPLUS ABB=ON PLU=ON L3 AND HUMECTANT

L4 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:850724 CAPLUS

DOCUMENT NUMBER: 135:376535

TITLE: Composition for make-up or skin-care in a  
powdery form containing a particular binder

INVENTOR(S): Hadasch, Anke; Lemann, Patricia; Simonnet,  
Jean-tierry

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE       |
|--|------|----------|-----------------|------------|
| EP 1155676   | A2   | 20011121 | EP 2001-401249  | 20010515   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,<br>PT, IE, SI, LT, LV, FI, RO |      |          |                 |            |
| FR 2808999   | A1   | 20011123 | FR 2000-6448    | 20000519   |
| JP 2002020236  | A2   | 20020123 | JP 2001-148415  | 20010517   |
| CN 1331967   | A    | 20020123 | CN 2001-122173  | 20010518   |
| PRIORITY APPLN. INFO.:   |      |          | FR 2000-6448    | A 20000519 |

OTHER SOURCE(S): MARPAT 135:376535

AB A make-up compn. contains a powdery phase and a binding phase which  
a continuous aq. phase. A binding phase contained iso-Pr myristate  
1.64, castor oil 2.46, vaseline oil 12.36, liq. lanolin 1.26,  
water 70.95, imidazolinyl urea 0.3, glycerin 5,  
Acylglutamate HS-11 0.03, phytantriol 2.97, vaseline 2.28,  
chlorphenesine 0.25, and polyoxyethylene sorbitan monopalmitate  
0.5%. A cosmetic make-up contained talc 77.06, iron oxide 2.74,  
Nylon powder 10, titanium oxide 1, preservative 0.2, and above  
binding phase 9%.

IT 9067-32-7, Sodium hyaluronate

RL: BUU (Biological use, unclassified); BIOL (Biological study);

USES (Uses)

(compn. for make-up or skin-care in powdery form contg.  
particular binder)

L4 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:472455 CAPLUS

DOCUMENT NUMBER: 135:66057

10/038830

TITLE: Skin compositions containing polyoxyethylene dicarboxylic acid esters  
INVENTOR(S): Ohmori, Takashi; Miyahara, Reiji; Kakoki, Hiroyuki; Namba, Tomiyuki  
PATENT ASSIGNEE(S): Shiseido Company, Ltd., Japan  
SOURCE: PCT Int. Appl., 49 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE       |
|--|------|----------|-----------------|------------|
| WO 2001045665  | A1   | 20010628 | WO 2000-JP8982  | 20001219   |
| W: KR, US  |      |          |                 |            |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR |      |          |                 |            |
| JP 2001240526  | A2   | 20010904 | JP 2000-17423   | 20000126   |
| JP 2002053451  | A2   | 20020219 | JP 2000-238126  | 20000807   |
| EP 1153602   | A1   | 20011114 | EP 2000-981822  | 20001219   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI      |      |          |                 |            |
| PRIORITY APPLN. INFO.:   |      |          | JP 1999-360818  | A 19991220 |
|  |      |          | JP 2000-17423   | A 20000126 |
|  |      |          | JP 2000-238126  | A 20000807 |
|  |      |          | WO 2000-JP8982  | W 20001219 |

AB Disclosed are skin compns. for external use which contain polyoxyethylene dicarboxylic acid esters  $R1O[(Me)CHCH2O]x(C2H5O)mCOR3CO(OC2H5)n[O(Me)CHCH2]yOR2$  ( $R1, R2 = H$ , C1-4 (blanched) alkyl;  $m, n, x, y = 0-5$ , provided  $m, n, x$  and  $y$  do not represent 0 at the same time; and  $R3 =$  branched or linear C0-10 alkylene). Because of contg. the polyoxyethylene dicarboxylic acid esters and a humectant, these compns. are excellent in the texture, in particular, smoothness in using and free from stickiness and exert a prolonged-moistening effect. A cosmetic lotion contg. ethanol 10, glycerin 5, 1,3-butylene glycol 5, diethoxyethyl succinate 0.001, nicotinamide 0.3, sodium pyrrolidone carboxylate 0.5, and water q.s. to 100 % was formulated.

IT 9067-32-7, Sodium hyaluronate  
RL: BUU (Biological use, unclassified); BIOL (Biological study);  
USES (Uses)  
(skin compns. contg. polyoxyethylene dicarboxylic acid esters and moisturizers)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2000:817459 CAPLUS  
DOCUMENT NUMBER: 133:366433  
TITLE: Antimicrobial compositions for skin disease  
INVENTOR(S): Noguchi, Yasuhisa; Tanaka, Yukihisa  
PATENT ASSIGNEE(S): Nippon Oil and Fats Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese

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FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| JP 2000319171          | A2   | 20001121 | JP 2000-1986    | 20000107   |
| PRIORITY APPLN. INFO.: |      |          | JP 1999-55359   | A 19990303 |

AB The antimicrobial compns. comprise bactericidal and disinfecting agents 0.01-20, **humectants** 0.001-20 and sebum-like substances 0.05-20 wt.%. The compn. may also contain substances such as dexamethasone and prednisolone. An ointment contained benzalkonium chloride 0.01, **sodium hyaluronate** 0.001, squalene 0.1 and ointment base to 100 wt.%. The ointment base contained e.g. petrolatum 25, stearyl alc. 20, propylene glycol 12, ethoxykated hardened castor oil 4, glycerol monostearate 1, Me p-hydroxybenzoate 0.1 Pr p-hydroxybenzoate 0.1 and purified **water** to 100 wt.%. The preps. are effective in treating . atopic dermatitis and other skin diseases.

L4 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:513464 CAPLUS

DOCUMENT NUMBER: 133:109653

TITLE: Active oxygen-free cosmetic compositions

INVENTOR(S): Nishioka, Hajime

PATENT ASSIGNEE(S): Faith Co., Ltd., Japan; Kojima, Tsuyoshi

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 2000042976   | A1   | 20000727 | WO 1999-JP6851  | 19991206   |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |            |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| JP 2000273034   | A2   | 20001003 | JP 1999-297842  | 19991020   |
| EP 1174108  | A1   | 20020123 | EP 1999-973627  | 19991206   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO   |      |          |                 |            |
| PRIORITY APPLN. INFO.:  |      |          | JP 1999-12115   | A 19990120 |
|   |      |          | JP 1999-297842  | A 19991020 |
|   |      |          | WO 1999-JP6851  | W 19991206 |

AB Disclosed are cosmetics generating no active oxygen. These cosmetics are prep'd. by combining components (bases, antioxidants, **humectants**, neutralizing agents, thickeners, foaming agents, preservatives, refreshing agents, buffers, pH regulating agents, coloring matters, fillers, sapong. agents, dispersants, anti-inflammatory agents, emulsifiers, fats and oils, UV light absorbers, skin-conditioners, solubilizers, surfactants,

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astrigents, moisturizers, emollients, UV light scattering agents or thickening aids) with one or more substances generating no active oxygen. A cosmetic lotion contg. conc. glycerin 8, diglycerin 4, modified alc. 5, dipotassium glycyrrhizinate 0.1, **sodium hyaluronate** 0.02, placenta ext. 0.3, Saxifragaceae ext. 0.2, chamomile ext. 0.5, garlic ext. 0.5, and **water** q.s. to 100 % was prep'd.

IT **9067-32-7, Sodium hyaluronate**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(active oxygen-free cosmetic compns. contg.)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:470370 CAPLUS

DOCUMENT NUMBER: 133:79051

TITLE: Composition for prevention of striae gravidarum

INVENTOR(S): Takashima, Yoshie

PATENT ASSIGNEE(S): Kansai Koso K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| JP 2000191492 | A2   | 20000711 | JP 1998-366706  | 19981224 |

AB A compn. [e.g. cream] for prevention of striae gravidarum comprise **humectants**, skin softening agents and cell activators at ratio of 0.001-5 : 0.01-50 : 0.001-5. A cream contained **sodium hyaluronate** 0.1, avocado oil 3, squalane 3, octyl dodecanol 2, natural vitamin E 1, ginseng ext. 1, Scutellaria baicalensis ext. 1, yeast ext. 1, glycerol tri-2-ethylhexanoate 12, stearic acid 3, POE sorbitan monostearate 4, cetanol 5, glycerin 5 sodium hydroxide 0.7 and purified **water** to 100 parts.

IT **9067-32-7, Sodium hyaluronate**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(compn. for prevention of striae gravidarum)

L4 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:374462 CAPLUS

DOCUMENT NUMBER: 133:155123

TITLE: Differential scanning calorimetry studies on the mechanism of skin-softening effect of sodium acetylhyaluronate

AUTHOR(S): Oka, T.; Ueno, N.; Yanaki, T.

CORPORATE SOURCE: New Technology Research Laboratories, Basic Research Center, Shiseido Co. Ltd., Yokohama, 223-8553, Japan

SOURCE: Polymer (2000), 41(16), 6055-6059

CODEN: POLMAG; ISSN: 0032-3861

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

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LANGUAGE: English

AB A novel **humectant**, sodium acetylhyaluronate (AcHA), was found to have an excellent skin-softening effect on the stratum corneum. To clarify the mechanism of the skin-softening effect, the hydration behavior of AcHA was investigated by DSC. The results suggested that the amt. of adsorbed **water** of AcHA in powder form was equal to that of HA. However, the DSC results showed that the bound **water** content in the stratum corneum treated with AcHA was markedly greater than that of HA-treated stratum corneum. Apparently, AcHA could enhance the intrinsic **water** holding capacity of stratum corneum. Thus, the excellent skin-softening effect of AcHA is due to the enhancement of the bound **water** content in the stratum corneum.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:425544 CAPLUS

DOCUMENT NUMBER: 131:63449

TITLE: Skin protection preparation containing activated aluminum chlorohydrate

INVENTOR(S): Birrenbach, Gerd; Gabard, Bernard

PATENT ASSIGNEE(S): Spirig A.-G. Pharmazeutische Praeparate, Switz.

SOURCE: Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| EP 925783  | A1   | 19990630 | EP 1998-811237  | 19981216 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,<br>PT, IE, SI, LT, LV, FI, RO |      |          |                 |          |

PRIORITY APPLN. INFO.: CH 1997-2884 19971216

AB Skin preps. contg. activated Al chlorohydrate  $[Al_2(OH)(6-x)Cl_x]_n$  ( $0 < x < 6$ ) and/or Al Zr chlorohydrate 0.5-30, **humectant** 0.5-20, and lipid or fatty acid ester 1.0-80 wt.%, along with conventional additives, are effective in preventing skin damage (e.g. eczema or irritation) from toxic substances. Thus, an aq. phase contg. distd. **water** 62.9, glycerin 5.0, Al chlorohydrate 5.0, and hexamidine isethionate (preservative) 0.1 was combined at 80.degree. with a lipid phase contg. paraffin oil 8.0, octyl palmitate 4.0, jojoba oil 4.0, behenyl alc. 7.5, ceteth-10 1.5, steareth-20 1.5 parts at 80.degree., the melt was homogenized, cooled to room temp., and 0.5 part phenoxyethanol (preservative) was added to provide a homogeneous oil-in-**water** cream emulsion.

IT 9067-32-7, Sodium hyaluronate

RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(**humectant**; skin protection prepn. contg. activated aluminum chlorohydrate)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN

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THE RE FORMAT

L4 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1997:699495 CAPLUS  
DOCUMENT NUMBER: 127:350990  
TITLE: Development and application of acetylhyaluronate  
for cosmetics, a novel **humectant**  
having an excellent skin-softening effect for  
stratum corneum  
AUTHOR(S): Oka, Takashi; Yanaki, Toshio  
CORPORATE SOURCE: Basic Res. Lab., Shiseido Res. Cent., Yokohama,  
223, Japan  
SOURCE: Fragrance J. (1997), 25(10), 9-15  
CODEN: FUJAD7; ISSN: 0288-9803  
PUBLISHER: Fureguransu Jararu Sha  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: Japanese

AB A review with 18 refs. To endow **sodium**  
**hyaluronate** (HA) with precious functions, we synthesized  
sodium acetylhyaluronate (AcHA), which was found to have a superb  
moisturizing effect and has an excellent skin-softening effect. To  
clarify mechanism of the effect, the hydration and adsorption of  
AcHA for the stratum corneum were measured. The results indicated  
that AcHA increased the **water** content in stratum corneum  
and could be efficiently adsorbed on the stratum corneum.  
Consequently, AcHA reduced transepidermal **water** loss  
(TEWL) and sufficiently softened the stratum corneum. Upon the use  
of AcHA in a cosmetic formula, it was also obsd. that 0.2%  
AcHA-lotion could increase the **water** contents in stratum  
corneum, reduce the TEWL, and improve scaly dry skin condition.

IT 9067-32-7D, acetyl derivs.  
RL: BAC (Biological activity or effector, except adverse); BUU  
(Biological use, unclassified); PRP (Properties); THU (Therapeutic  
use); BIOL (Biological study); USES (Uses)  
(skin-softening effect of acetylhyaluronate on stratum corneum  
and its application to cosmetics)

L4 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1997:548112 CAPLUS  
DOCUMENT NUMBER: 127:210182  
TITLE: Development and application of acetylhyaluronate  
for cosmetics  
AUTHOR(S): Oka, Takashi; Uemura, Masaaki; Ueno, Norio;  
Yanaki, Toshio; Yamaguchi, Michihiro  
CORPORATE SOURCE: Shiseido Res. Cent., Kanagawa, 223, Japan  
SOURCE: Sci. Conf. Asian Soc. Cosmet. Sci., 3rd (1997),  
234-245. Asian Societies of Cosmetic  
Scientists: Taichung, Taiwan.  
CODEN: 64XSAZ  
DOCUMENT TYPE: Conference  
LANGUAGE: English  
AB To maintain healthy and fresh skin, it is necessary to moisten  
sufficiently stratum corneum. Due to aging, surroundings, phys.  
constitution, and other factors, the stratum corneum always has a  
tendency to lose its normal **water** content. It is  
effective to apply **humectants** to the skin for keeping the  
normal **water** content. In general, **humectants**,  
**sodium hyaluronate** (HA), which is made from safe

biol. sources and is hardly subject to relative humidity of environment, has a very high moisturizing effect. To endow HA with precious functions, the authors synthesized varieties of HA derivs. and evaluated their usefulness for cosmetic products. After numerous investigations for finding HA derivs., the authors eventually discovered a novel HA deriv., sodium acetylhyaluronate (AcHA), which increases moisturizing effect and has a very high skin-softening effect for stratum corneum. To clarify the mechanism of the skin-softening effect, the hygroscopicity of AcHA was measured. The hygroscopicity of AcHA was equal to that of HA. However, DSC also showed that the bound **water** content of stratum corneum treated with AcHA was markedly greater than that of HA-treated stratum corneum. It was also found by in *an vivo* test that AcHA raised the **water** content of stratum corneum more than HA did. Apparently, AcHA could enhance the intrinsic **water**-holding capacity of the stratum corneum. Thus, there was an interaction between AcHA and stratum corneum and this could induce the strong skin-softening effect. To investigate this interaction, the adsorption of AcHA on human skin was measured. The amt. of adsorption of AcHA was markedly greater than that of HA. This was consistent with the fact that AcHA is an amphiphilic polymer having an effect of lowering the surface tension. Considering these results and properties, it was suggested that AcHA could be adsorbed efficiently on human skin, and this adsorption reduced the transepidermal **water** loss and resulted in the skin-softening effect. Upon the use of AcHA in cosmetic formulation, it was obsd. that a lotion contg. 0.2% AcHA could increase the **water** contents in stratum corneum, reduce the transepidermal **water** loss, and improve the skin condition. Although further research is necessary to demonstrate the skin-softening effect of AcHA, the superior effect of AcHA as a **humectant** was confirmed in this study.

IT 9067-32-7DP, **Sodium hyaluronate**, acetyl derivs.  
 RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (acetylhyaluronate for cosmetics)

IT 9067-32-7, **Sodium hyaluronate**  
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); USES (Uses)  
 (acetylhyaluronate for cosmetics)

L4 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1997:399963 CAPLUS  
 DOCUMENT NUMBER: 127:23497  
 TITLE: Skin care composition comprising sunscreen, **humectant** and exfoliant  
 INVENTOR(S): Campbell, Sean; Edsor, Marion; Herd, John  
 PATENT ASSIGNEE(S): Fernsoft, UK  
 SOURCE: Brit. UK Pat. Appl., 24 pp.  
 CODEN: BAXXDU  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

Searcher : Shears 308-4994

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AB GB 2304573 A1 19970326 GB 1995-17711 19950831  
AB GB 2304573 B2 19990728  
AB Cosmetic skin care compn. comprising a sunscreen e.g. octylmethoxy cinnamate, emollient e.g. glyceryl stearate, **humectant** e.g. glycerin, anti-oxidant e.g. vitamins A/C/E, exfoliant e.g. .alpha.-hydroxy acids from fruit ext., bodifier e.g. cetyl alc., emulsifier e.g. sorbitan stearate, preservative e.g. Pr paraben, sequestering agent e.g. disodium EDTA, delivery agent, e.g. phytantriol and **water**. Vitamins A and C may be liposomal form. Formulations of different cosmetics are claimed.  
IT 9067-32-7, SODIUM HYALURONATE  
RL: BUU (Biological use, unclassified); BIOL (Biological study);  
USES (Uses)  
    (skin care compn. comprising sunscreen, **humectant** and exfoliant)

L4 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1996:732503 CAPLUS  
DOCUMENT NUMBER: 126:36867  
TITLE: **Humectant compositions and their use in manufacturing cosmetics or topical preparations**  
INVENTOR(S): Ooyama, Keiichi; Fujisawa, Masaaki; Kobayashi, Rie; Fujimoto, Naoko; Tsuji, Misako  
PATENT ASSIGNEE(S): Nisshin Oil Mills Ltd, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| JP 08259433   | A2   | 19961008 | JP 1995-88666   | 19950323 |
| JP 3159622  | B2   | 20010423 |                 |          |
| WO 9813436  | A1   | 19980402 | WO 1996-JP2739  | 19960924 |
| W: US   |      |          |                 |          |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,<br>PT, SE |      |          |                 |          |

PRIORITY APPLN. INFO.: JP 1995-88666 A 19950323

AB **Humectant compns. contg. water-sol. polyvalent alcs. (glycerol and/or sorbitol), lecithin, 3-methyl-1,3-butylene glycol and water, and their use in manufg. cosmetics or topical preps. are claimed.** A lotion contained glycerin 5, diglycerin 5, hydrogenated eggylolk lecithin 2, 3-methyl-1,3-butylene glycol 10, neopentyl glycol dicaprate 1, Et p-hydroxybenzoate 0.1, sodium hyaluronate 0.1 and water to 100 wt.-%.

IT 7732-18-5, Water, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study);  
USES (Uses)  
(humectant compns. and their use in manufg. cosmetics  
or topical preps.)

L4 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1995:574021 CAPLUS

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DOCUMENT NUMBER: 122:298724  
TITLE: Cosmetic makeup compositions  
INVENTOR(S): Igo-Kemenes, Kataline; Boxshall, Alison Ruth;  
Morris, Sian  
PATENT ASSIGNEE(S): Procter and Gamble Co., USA  
SOURCE: PCT Int. Appl., 30 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 9509598  | A1   | 19950413 | WO 1994-US11138 | 19940930 |
| W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG,<br>KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, NO, NZ, PL, RO, RU,<br>SI, SK, TJ, TT, UA, US, UZ, VN |      |          |                 |          |
| RW: KE, MW, SD, SZ, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,<br>SN, TD, TG   |      |          |                 |          |
| CA 2173112  | AA   | 19950413 | CA 1994-2173112 | 19940930 |
| AU 9480124  | A1   | 19950501 | AU 1994-80124   | 19940930 |
| AU 691205   | B2   | 19980514 |                 |          |
| CN 1134661  | A    | 19961030 | CN 1994-194094  | 19940930 |
| JP 09504009   | T2   | 19970422 | JP 1994-510930  | 19940930 |
| US 6001373  | A    | 19991214 | US 1996-619684  | 19960402 |
| PRIORITY APPLN. INFO.:  |      |          | GB 1993-20349   | 19931002 |
|   |      |          | EP 1993-308092  | 19931008 |
|   |      |          | WO 1994-US11138 | 19940930 |

AB A makeup compn. in the form of a **water-in-oil** or **oil-in-water** emulsion comprises silicone oil selected from volatile silicones, nonvolatile silicones and mixts. thereof, optionally **humectant**, at least one coated or uncoated iron oxide-type pigment and a TiO<sub>2</sub>-coated platelet-type interference pigment material having a TiO<sub>2</sub> layer thickness of 120-160 nm or a whole no. multiple thereof. The makeup compn. exhibits improved moisturization, together with improved skin feel and appearance and color correction benefits.

IT 9067-32-7, **Sodium hyaluronate**  
RL: BUU (Biological use, unclassified); BIOL (Biological study);  
USES (Uses)  
(cosmetic makeup compns. contg. silicone oils and pigments and emollients)

L4 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1994:541751 CAPLUS  
DOCUMENT NUMBER: 121:141751  
TITLE: Pharmaceutical compositions containing hyaluronic acid and urea for treatment of epithelial diseases  
INVENTOR(S): Gallina, Damian J.  
PATENT ASSIGNEE(S): Patent Biopharmaceutics Inc., USA  
SOURCE: PCT Int. Appl., 79 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

10/038830

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 9415623   | A1   | 19940721 | WO 1993-US12369 | 19931223 |
| W: AU, CA, FI, HU, JP, KR, NO                                      |      |          |                 |          |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |          |
| US 5550112   | A    | 19960827 | US 1993-101826  | 19930804 |
| AU 9458524   | A1   | 19940815 | AU 1994-58524   | 19931223 |
| EP 676963  | A1   | 19951018 | EP 1994-904499  | 19931223 |
| R: BE, CH, DE, ES, FR, GB, IT, LI, NL                              |      |          |                 |          |
| JP 08505388  | T2   | 19960611 | JP 1993-516025  | 19931223 |
| PRIORITY APPLN. INFO.:   |      |          | US 1992-996938  | 19921230 |
|  |      |          | US 1993-101826  | 19930804 |
|  |      |          | US 1992-966938  | 19921230 |
|  |      |          | WO 1993-US12369 | 19931223 |

AB Pharmaceutical compns. contg. a pharmaceutically acceptable carrier, urea, and hyaluronic acid or a pharmaceutically salt thereof are used for treatment of cutis, anorectal epithelium and rectal mucosa. A cream contained urea 0.10, **Na hyaluronate** 15, Fattibase 4.5, glycerin 1.5, lecithin 1.5, PEG-400 1.5, and **water** 75.90 g. The cream was successfully used for treatment of patients with contact dermatitis.

IT 9067-32-7, **Sodium hyaluronate**  
RL: BIOL (Biological study)  
(pharmaceutical compns. contg. urea and, for treatment of epithelial diseases)

L4 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1992:557674 CAPLUS  
DOCUMENT NUMBER: 117:157674  
TITLE: Isotonic eyedrops having nonnewtonian rheological properties  
INVENTOR(S): Dikstein, Shabtay  
PATENT ASSIGNEE(S): Israel  
SOURCE: U.S., 8 pp. Cont.-in-part of U.S. Ser. No. 350,286, abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE      | APPLICATION NO. | DATE     |
|------------------------|------|-----------|-----------------|----------|
| US 5106615             | A    | 19920421  | US 1990-620102  | 19901130 |
| IL 80298               | -A1  | -19930131 | IL 1986-80298   | 19861014 |
| PRIORITY APPLN. INFO.: |      |           | IL 1986-80298   | 19861014 |
|                        |      |           | US 1987-107575  | 19871013 |
|                        |      |           | US 1989-350286  | 19890511 |

AB The title eyedrops contain (1) an anionic polymer having mol. wt. 500,000 - 4,000,000 at a concn. resulting in a viscosity of  $\text{ltoreq.} 150 \text{ cP}$  at 1 s-1 shear rate, which decreases to  $\text{ltoreq.} 30 \text{ cP}$  s-1 at 100 s-1 shear rate, and (2) a **humectant** moisturizing polyol of mol. wt.  $\text{ltoreq.} 500$ , having strong **water-holding** properties, at isotonic or slightly above or below isotonic concn. which soln. contains  $\text{ltoreq.} 1.5 \text{ mmol.}$  of monovalent or bivalent salts, not including the salts of the anionic

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polymer. An isotonic ophthalmic soln. contained glycerol 2.75, **Na hyaluronate** 0.10, idoxuridine 0.1 g, and **water** 100mL.

IT 9067-32-7, **Sodium hyaluronate**  
RL: BIOL (Biological study)  
(isotonic ophthalmic solns. contg. polyols and)

L4 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1991:214190 CAPLUS  
DOCUMENT NUMBER: 114:214190  
TITLE: Solid highly soluble cosmetic composition  
INVENTOR(S): Funatsu, Shinichiro  
PATENT ASSIGNEE(S): Shiseido Co., Ltd., Japan  
SOURCE: Eur. Pat. Appl., 5 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.                | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------------------|------|----------|-----------------|----------|
| EP 412449                 | A2   | 19910213 | EP 1990-114944  | 19900803 |
| EP 412449                 | A3   | 19921125 |                 |          |
| EP 412449                 | B1   | 19960110 |                 |          |
| R: DE, ES, FR, GB, IT, NL |      |          |                 |          |
| JP 03068507               | A2   | 19910325 | JP 1989-204488  | 19890807 |
| JP 2865320                | B2   | 19990308 |                 |          |
| CA 2022478                | AA   | 19910208 | CA 1990-2022478 | 19900801 |
| ES 2081324                | T3   | 19960301 | ES 1990-114944  | 19900803 |
| AU 9060175                | A1   | 19910207 | AU 1990-60175   | 19900806 |
| AU 631233                 | B2   | 19921119 |                 |          |

PRIORITY APPLN. INFO.: JP 1989-204488 19890807

AB A solid cosmetic comprises a freeze-dried product of an aq. soln. contg. a **water**-sol. solid substance and a **water**-sol. polymer as a thickener or a **humectant**. Thus, mannitol 2.0, PEG-4000 6.0, sucrose 2.0, pectin 0.2, algae colloid 0.2, **Na hyaluronate** 0.5, Na PCA 0.5, atelocollagen (2% aq. soln.) 1.0, placenta ext. 0.5, and deionized **water** 87.1 % were mixed and freeze-dried to give a cosmetic powder.

L4 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1990:11793 CAPLUS  
DOCUMENT NUMBER: 112:11793  
TITLE: Skin preparations containing ceramides, glucosylceramides, and/or galactosylceramides and low molecular-weight acidic mucopolysaccharides for prevention of aging  
INVENTOR(S): Miyamoto, Tatsu; Uchida, Ryoichi  
PATENT ASSIGNEE(S): Kanebo, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

10/038830

| PATENT NO.  | KIND   | DATE     | APPLICATION NO. | DATE     |  |
|-------------|--|----------|-----------------|----------|--|
| JP 01022809 | A2   | 19890125 | JP 1987-176904  | 19870715 |  |
| JP 06104620 | B4   | 19941221 |                 |          |  |
| AB          | Skin preps. contain ceramides, glucosylceramides, and/or galactosylceramides and low mol.-wt. acidic mucopolysaccharides and/or their salts. The skin preps. show rough skin-treatment, corneum-treatment, and moisturizing effects and prevent aging of skin. The skin preps. require no addn. of large amt. of other <b>humectant</b> agents, e.g. glycerin, propylene glycol, etc., which absorb <b>water</b> in corneum, and softeners, e.g. liq. paraffin, vaseline, etc., which inhibit normal metab. in skin. A two-layer skin lotion contg. olive oil 15.0, iso-Pr myristate 5.0, polyoxyethylene nonylphenyl ether 0.5, propylene glycol 3.0, glycerin 5.0, methylparaben 0.1, ETOH 7.0, ceramides 0.4, hyaluronic acid (I) 0.5 wt.%, and purified <b>water</b> balance, was applied to legs of 20 middle-aged subjects suffering from rough skin, dry skin, or senile dry skin; a decrease of perspiration (TWL value) as an index of moisturizing effect was obsd. in 15 subjects, vs. 8 for a control treated with a lotion free of I. |          |                 |          |  |
| IT          | 9067-32-7, <b>Sodium hyaluronate</b><br>RL: BIOL (Biological study)<br>(cosmetics contg. (glucosyl or galactosyl)ceramides and, for aging prevention)  |          |                 |          |  |

L4 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1989:540222 CAPLUS  
DOCUMENT NUMBER: 111:140222  
TITLE: Skin cosmetics containing oil-in-**water**  
dispersions containing natural surfactants and  
liposome-**water** dispersions  
INVENTOR(S): Takenouchi, Masanori; Hirai, Yoshikazu  
PATENT ASSIGNEE(S): Pola Chemical Industries, Inc., Japan  
SOURCE: Fr. Demande, 22 pp.  
CODEN: FRXXBL  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| FR 2614787  | A1   | 19881110 | FR 1988-6182    | 19880506 |
| FR 2614787  | B1   | 19940603 |                 |          |
| JP 63275506 | A2   | 19881114 | JP 1987-109832  | 19870507 |
| JP 2554880  | B2   | 19961120 |                 |          |

PRIORITY APPLN. INFO.: JP 1987-109832 19870507  
AB Skin cosmetics comprise an oil-in-**water** dispersion contg. natural substances having surfactant and **humectant** properties and a liposome-**water** dispersion contg. an intercellular lipid; the ingredients are mixed in such a manner that the two dispersions coexist in the mixt. The surfactants are selected from collagen or casein or their hydrolyzates, fibroin or glycyrrhizin or their derivs.; the **humectants** are selected from hyaluronic acid, chondroitin sulfate, dermatan sulfate, or their salts, chitin, chitosan, or their derivs., collagen or its hydrolyzates, gelatin, glycerol, polyglycerol, and carboxyvinyl polymers; the intercellular lipids are selected from phospholipids,

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glycolipids, and cholesterol or its derivs. The cosmetics can contain synthetic surfactants in addn. to the natural surfactants thus named. An emollient cream contained spermaceti 3.0, beeswax 2.0, liq. paraffin 15.0, behenyl alc. 5.0, preservatives 0.3, elastin hydrolyzate 2.0, 1,3-butylene glycol 10.0, carboxymethylchitin 0.5, H<sub>2</sub>O 53.2, soy lecithin 2.0, sphingoglycolipids 1.0, phytosterol 0.5, glycerol 5.0, and vitamin A 0.5 parts by wt. The cream was prep'd. by mixing an oily phase contg. spermaceti, bees wax, liq. paraffin, behenyl alc., and preservatives with an aq. phase contg. elastin hydrolyzate, 1,3-butylene glycol, carboxymethylchitin, and H<sub>2</sub>O to form a **water-in-oil** dispersion to which an aq. liposome dispersion was added; the liposomes consisted of soy lecithin, sphingoglycolipids, phytosterol, glycerol, and vitamin A. The moisturizing effect of this cosmetic is prolonged by 10 h, compared to the a similar cosmetic contg. addnl. 2.0% by wt. glycerol monostearate and 3.0% by wt. ethoxylated cetyl alc. (i.e. synthetic surfactant) instead of elastin hydrolyzates.

IT 9067-32-7, **Sodium hyaluronate**

RL: BIOL (Biological study)  
(**oil-in-water** dispersions contg., cosmetics from aq.  
liposome dispersions and)

L4 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1989:179564 CAPLUS

DOCUMENT NUMBER: 110:179564

TITLE: Preparation of aminopolysaccharide derivatives, especially chitosonium salts, by acid decrystallization, and their medical, cosmetic, and liquid separation uses

INVENTOR(S): Partain, Emmett Malone, III; Brode, George Lewis, II

PATENT ASSIGNEE(S): Union Carbide Corp., USA

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

| PATENT NO.                                    | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 8707618                                    | A1   | 19871217 | WO 1987-US1246  | 19870602 |
| W: JP, US                                     |      |          |                 |          |
| RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE    |      |          |                 |          |
| EP 271551                                     | A1   | 19880622 | EP 1987-904163  | 19870602 |
| EP 271551                                     | B1   | 19961030 |                 |          |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE |      |          |                 |          |
| JP 63503466                                   | T2   | 19881215 | JP 1987-503854  | 19870602 |
| JP 07076241                                   | B4   | 19950816 |                 |          |
| AT 144781                                     | E    | 19961115 | AT 1987-904163  | 19870602 |
| CA 1283655                                    | A1   | 19910430 | CA 1987-539050  | 19870608 |
| US 4929722                                    | A    | 19900529 | US 1988-189312  | 19880203 |
| PRIORITY APPLN. INFO.:                        |      |          | US 1986-871381  | 19860606 |
|   |      |          | WO 1987-US1246  | 19870602 |

AB The heterogeneous acid decrystn. of aminopolysaccharides, esp. chitosan, using diluent, org. acid, and H<sub>2</sub>O, provides novel salts and covalent derivs. while avoiding processing

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difficulties encountered with aq. processing. The products are useful in fluid sepn., personal care products, and biomedical applications. Chitosan (80% deacetylated) was ground and slurried in H<sub>2</sub>O-Me<sub>2</sub>CO, and itaconic acid was added as a powder and the slurry was stirred for 3 h. The slurry was allowed to settle, supernatant was decanted, Me<sub>2</sub>CO was added, and the polymer was collected by filtration; the mass gain of chitosonium itaconate was 0.30. Chitosonium itaconate was dissolved in hot H<sub>2</sub>O, the soln. cooled, sulfanilamide was added, and a film was cast and cured at 100.degree. for 18 h. Although the film was insol. in water, >95% of the sulfanilamide was extd. from the film in H<sub>2</sub>O after 30 min.

IT 9067-32-7, Sodium hyaluronate

RL: BIOL (Biological study)

(blend with chitosan pyrrolidonecarboxylate, for wound dressings)

L4 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1989:121403 CAPLUS

DOCUMENT NUMBER: 110:121403

TITLE: Isotonic **humectant** eye drops

INVENTOR(S): Dikstein, Shabtay

PATENT ASSIGNEE(S): Resdevco Research and Development Co., Ltd., Israel

SOURCE: Brit. UK Pat. Appl., 3 pp.

CODEN: BAXXDU

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| GB 2196255 | A1   | 19880427 | GB 1987-24112   | 19871014 |
| GB 2196255 | B2   | 19910515 |                 |          |
| IL 80298   | A1   | 19930131 | IL 1986-80298   | 19861014 |
| SE 8703972 | A    | 19880415 | SE 1987-3972    | 19871013 |
| SE 503469  | C2   | 19960624 |                 |          |
| CA 1311418 | A1   | 19921215 | CA 1987-549162  | 19871013 |
| FR 2604906 | A1   | 19880415 | FR 1987-14176   | 19871014 |
| FR 2604906 | B1   | 19920207 |                 |          |
| DE 3734835 | A1   | 19880601 | DE 1987-3734835 | 19871014 |
| DE 3734835 | C2   | 19970717 |                 |          |

PRIORITY APPLN. INFO.: IL 1986-80298 19861014

AB Isotonic eye drops contain an org. **humectant** and the required adjuvants. These solns. contain <1.5 mmol/L salts. An isotonic ophthalmic soln. contained 2.75 g glycerol, 0.05 g **Na hyaluronate**, and 100 mL H<sub>2</sub>O.

Dexamethasone di-Na phosphate (0.05 g) was added to this base to give an antiinflammatory pharmaceutical which did not irritate the eyes.

L4 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1985:546968 CAPLUS

DOCUMENT NUMBER: 103:146968

TITLE: **Humectants** and their effects on the moisturization of skin

AUTHOR(S): Ozawa, Tatsuya; Nisiyama, Shoji; Horii, Izumi; Kawasaki, Kiyoshi; Kumano, Yoshimaru; Nakayama,

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CORPORATE SOURCE: Yasuhisa  
Shiseido Lab., Yokohama, Japan  
SOURCE: Hifu (1985), 27(2), 276-88  
CODEN: HIFUAG  
DOCUMENT TYPE: Journal  
LANGUAGE: Japanese  
AB In vivo expts. with guinea pig corneum and human skin and in vitro tests indicated that an appropriate combination of **H<sub>2</sub>O**, **humectants** and oily substances was important for a max. skin moisturizing effect. The combination showed synergistic effects. Furthermore, appropriate combination of higher mol.-wt. **humectants** (hyaluronic acid [9004-61-9] and other mucopolysaccharides) and lower mo.-wt. **humectants** glycerol [56-81-5] and other polyols or (pyrrolidonecarboxylic acid [98-79-3]) also showed synergistic effects. An appropriate formulation protects the skin via physicochem. effects as well as biochem. effects (e.g, promotion of amino acid metab.).  
IT 9067-32-7  
RL: BIOL (Biological study)  
(skin moisturizers contg.)  
  
L4 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1984:73782 CAPLUS  
DOCUMENT NUMBER: 100:73782  
TITLE: Application of **water**-holding polymers as a skin moisturizer  
AUTHOR(S): Hoshizaki, Sadao; Nakabata, Hidetoshi  
CORPORATE SOURCE: Pola Lab., Yokohama, Japan  
SOURCE: J. SCCJ (1983), 17(1), 19-26  
CODEN: JOSCDQ  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB **Water**-sol. polymers forming hydrogel films contg. **water** provide natural protective characteristics not found in commonly used low-mol. wt. **humectants**. Film strength and elasticity tests on the polymers resulted in **Na hyaluronate** (I) [9067-32-7] giving the highest values under all test conditions. In vivo tests and surface slip resistance measurements indicated that I reduced skin friction resistance and thus increased skin smoothness. Transepidermal **water** loss, and skin/polymer affinity measurements revealed that some **water** sol. polymers formed, not a completely occlusive, but a **water**-permeable, dermal respirable film on skin surfaces. In vitro and in vivo test results suggested that ideal **water** sol. polymers which would be useful as skin moisturizer should meet the following conditions; (A) must have a high mol. wt. rather than a low mol. wt.; (B) should have a component of a N compd. for better skin affinity; I having a mol. wt. in 6 .times. 105 9 .times. 105 range fulfilled all of these conditions. The optimum combination of these properties enhances the skin's natural protective mechanism and is chiefly responsible for its outstanding performance as a skin moisturizer. Also lotions contg. I had a pleasant skin feel and the feel was perceptible at a low level of incorporation by the consumers.  
IT 9067-32-7  
RL: BIOL (Biological study)  
(skin moisturizer)

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(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,  
JICST-EPLUS, JAPIO' ENTERED AT 15:07:49 ON 04 APR 2002)

L5 24 S 14  
L6 22 DUP REM L5 (2 DUPLICATES REMOVED)

L6 ANSWER 1 OF 22 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD  
ACCESSION NUMBER: 2000-318801 [28] WPIDS  
DOC. NO. CPI: C2000-096847  
TITLE: Sterilizing liquid containing transparent  
sodium hyaluronate for hand  
washing - is prepared by dissolving water  
insoluble non-ionic antibacterial agent in  
surfactant solution, then addition of wetting  
humectant.  
DERWENT CLASS: D22 E14  
INVENTOR(S): HUANG, X; LING, P; YUE, W  
PATENT ASSIGNEE(S): (LING-I) LING P  
COUNTRY COUNT: 1  
PATENT INFORMATION:

| PATENT NO  | KIND | DATE     | WEEK      | LA | PG |
|------------|------|----------|-----------|----|----|
| CN 1245213 | A    | 20000223 | (200028)* |    | 1  |

APPLICATION DETAILS:

| PATENT NO  | KIND | APPLICATION    | DATE     |
|------------|------|----------------|----------|
| CN 1245213 | A    | CN 1998-110400 | 19980814 |

PRIORITY APPLN. INFO: CN 1998-110400 19980814

AN 2000-318801 [28] WPIDS

AB CN 1245213 A UPAB: 20000617

A sterilizing liquid containing sodium hyaluronate  
for washing hands, is prepared by dissolving a water  
-insoluble nonionic antibacterial agent (for example,  
2,4,4'-trichloro-2'-hydroxydiphenyl ether) in aqueous solution  
containing surfactant, and adding sodium  
hyaluronate as natural wetting humectant to it.

USE - Hand washing in hospitals, pharmaceutical industry and  
similar fields.

ADVANTAGE - Broad antibacterial application spectrum, high  
antibacterial effect, no damage to skin, and beautifying skin by  
making it smooth and flexible.

L6 ANSWER 2 OF 22 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.  
ACCESSION NUMBER: 2000384444 EMBASE  
TITLE: Therapeutic moisturizers.  
AUTHOR: Draelos Z.D.  
CORPORATE SOURCE: Dr. Z.D. Draelos, 2444 North Main Street, High Point,  
NC 27262, United States. zdraelos@northstate.net  
SOURCE: Dermatologic Clinics, (2000) 18/4 (597-607).  
Refs: 48  
ISSN: 0733-8635 CODEN: DRMCDJ  
COUNTRY: United States  
DOCUMENT TYPE: Journal; General Review  
FILE SEGMENT: 013 Dermatology and Venereology

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LANGUAGE: English

SUMMARY LANGUAGE: English

AB Moisturizers have been adapted to perform many important roles on the skin surface. Simple moisturizers combine occlusives and **humectants** to enhance the **water**-holding capacity of the skin. The addition of carefully selected emollients can influence the esthetic properties of the moisturizer and the stability of the active ingredients. The addition of sunscreens to moisturizers has created a new product category with an added skin function. Further diversity in moisturizer formulation is created through the addition of specialty ingredients, designed to enhance the functioning of the skin. Moisturizers are an important part of the dermatologist's armamentarium.

L6 ANSWER 3 OF 22 JAPIO COPYRIGHT 2002 JPO

ACCESSION NUMBER: 1999-279531 JAPIO

TITLE: GLAND PACKING

INVENTOR: TANEMOTO MASAHIKO; WATANABE KATSUMI; KUZAWA NAOYA

PATENT ASSIGNEE(S): NICHIAS CORP)

PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | ERA    | MAIN IPC   |
|-------------|------|----------|--------|------------|
| JP 11279531 | A    | 19991012 | Heisei | C09K003-10 |

JP

APPLICATION INFORMATION

ST19N FORMAT: JP1998-100103 19980327

ORIGINAL: JP10100103 Heisei

SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 99

AN 1999-279531 JAPIO

AB PROBLEM TO BE SOLVED: To obtain a gland packing which exhibits a low sliding resistance and good sealing properties by incorporating a **humectant** and a lubricant (e.g. paraffin) into an expandable graphite packing comprising expandable graphite or a composite thereof with reinforcing fibers (e.g. metal fibres).

SOLUTION: A sheet of expandable graphite or of a composite of expandable graphite with reinforcing fibers (e.g. metal fibers) is cut into a certain width; thus obtd. tape-like material is spirally arranged in a metal mold and then press-molded in the longitudinal direction to give a ring-shape expandable graphite gland packing; and this gland packing is immersed in a liquid contg. equal amts. of a **humectant** and a lubricant selected from among turbine oils, silicone oils, paraffin waxes, paraffin emulsions, etc., to give a gland packing contg. the **humectant** and the lubricant attached thereto, each in an amt. of 0.1 wt.% or higher.

The **humectant** absorbs the atmospheric moisture and prevents **water** at the packing surface from vaporizing, and its examples are glycerin, ethylene glycol, glycine, soluble collagen, polypeptides, and **sodium hyaluronate**.

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L6 ANSWER 4 OF 22 JICST-EPlus COPYRIGHT 2002 JST

ACCESSION NUMBER: 980716649 JICST-EPlus

TITLE: Synthesis and Application of 2-Methacryloyloxyethyl Phosphorycholine Copolymer.

10/038830

AUTHOR: SHIMADA KUNIO; IRIE HIROFUMI; MURATA YOSHISHIGE  
ISHIHARA KAZUHIKO  
NAKABAYASHI NOBUO  
CORPORATE SOURCE: Tsukubaken  
Univ. of Tokyo, Grad. Sch.  
Tokyo Medical and Dental Univ., Inst. for Medical and  
Dental Engineering  
SOURCE: Fragr J, (1998) vol. 26, no. 7, pp. 97-104. Journal  
Code: G0987B (Fig. 13, Tbl. 3, Ref. 8)  
CODEN: FUJAD7; ISSN: 0288-9803  
PUB. COUNTRY: Japan  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: Japanese  
STATUS: New  
AB Moisturizing agents such as sodium **hyaluronate**,  
sodium pyrrolidonecarboxylate, or sphingolipid have been developed  
for use in cosmetic field. Although they show **humectant**  
properties with various mechanism, their effect seems to be limited.  
We have synthesized an amphiphilic polymer, poly.cents.2-  
methacryloyloxyethyl phosphorylcholine(MPC)-co-butyl  
methacrylate(BMA)! which not only shows **water-holding**  
capacity under both in vitro and in vivo test but also gives us  
naturally moisturized feeling on the skin. At the same time, the  
poly(MPC-co-BMA) works as a surfactant with reducing static  
electrification and surface tension. It protects hair or skin from  
damage, rather cures them. In this article, we introduce application  
of the poly(MPC-co-BMA) to the skin-care and the hair-care  
cosmetics. For cosmetics field such a less irritating surfactant has  
a great promise for future ingredient. (author abst.)

L6 ANSWER 5 OF 22 JICST-EPlus COPYRIGHT 2002 JST  
ACCESSION NUMBER: 971029863 JICST-EPlus  
TITLE: Skin-softening Effect of Sodium Acetylhaluronate.  
AUTHOR: OKA TAKASHI; MATSUZAKI FUMIAKI; YANAKI TOSHIO  
CORPORATE SOURCE: Shiseido Co., Ltd.  
SOURCE: Nippon Kagakkai Koen Yokoshu, (1997) vol. 73rd, pp.  
331. Journal Code: S0493A  
ISSN: 0285-7626

PUB. COUNTRY: Japan  
LANGUAGE: Japanese  
STATUS: New

AB To endow **sodium hyaluronate(HA)** with precious  
functions, we synthesized sodium acetylhyaluronate(AcHA), which has  
an excellent skin-softening effect for stratum corneum. To clarify  
the mechanism of the effect, differential scanning calorimetry(DSC)  
unveiled that the maximum bound **water** content, which is  
observed before appearance of free **water**, of AcHA was equal  
to that of HA. However, DSC also showed that the bound **water**  
content of stratum corneum treated with AcHA was markedly greater  
than that of HA-treated stratum corneum. To investigate this  
interaction, the adsorption of AcHA on human skin was measured. The  
results showed that the amount of adsorption of AcHA was markedly  
greater than that of HA. Considering these results and properties,  
it was suggested that AcHA could be adsorbed efficiently on human  
skin, and this adsorption reduced the transepidermal **water**  
loss and resulted in the skin-softening effect. Upon the use of AcHA  
in cosmetic formula, it was observed that a lotion containing 0.2%  
AcHA could increase the **water** contents in stratum corneum,

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reduce the transepidermal **water** loss (TEWL), and improve the skin condition. Although further research is necessary to demonstrate the skin-softening effect of AcHA, its superior effect as a **humectant** was confirmed in this study. (author abst.)

L6 ANSWER 6 OF 22 JICST-EPlus COPYRIGHT 2002 JST.  
ACCESSION NUMBER: 970431514 JICST-EPlus  
TITLE: Skin Care in Atopic Dermatitis. Characterizing dry skin in atopic dermatitis and utility of skin care.  
AUTHOR: TAKAHASHI MOTOJI  
CORPORATE SOURCE: Shiseido Co., LTD  
SOURCE: Nippon Koshohin Kagakkaishi (Journal of Japanese Cosmetic Science Society), (1997) vol. 21, no. 1, pp. 50-55. Journal Code: Y0265A (Fig. 6, Tbl. 2, Ref. 14)  
ISSN: 0287-1238  
PUB. COUNTRY: Japan  
DOCUMENT TYPE: Journal; Commentary  
LANGUAGE: Japanese  
STATUS: New

AB The dry skin in atopic dermatitis (AD) was characterized using non-invasive methods. Patients with atopic xerosis showed markedly higher transepidermal **water** loss (TEWL) and markedly lower skin surface hydration levels than did the controls. The stratum corneum of AD patients contained lower amount of free amino acids and ceramides than did those of controls. Skin surface pH in AD patients was higher than that of controls. Parakeratotic cells were observed in tape stripped stratum corneum of AD patients. A clinical study of cream which is compounded of squalane and jojoba oil as the main bases, a derivative of glycyrrhetic acid and allantoin as the active ingredients, and **sodium hyaluronate** and glycerin as the **humectant** was conducted for patients with mild to moderate AD to evaluate its utility. The rate of improvement by symptom was especially high, 78.4 and 75.0%, for dry skin and scale, respectively, and the rates for an itching sensation and scratch marks were also relatively high, 56.1 and 53.1%, respectively. The physiological condition of AD skin was improved by 4 weeks treatment by the cream. Moisture content of stratum corneum significantly increased and the heterogeneity of skin surface ridges significantly decreased. TEWL tended to be lower after use than before use. The effect of 4 weeks treatment by bathing emulsion containing oil, **humectants**, dipotassium glycyrrhetinate, and rice germ oil on AD dry skin was examined. The rate of improvement by symptom was high, 74.2% for dry skin and scale, and the rates for an itching sensation was 54.8%. By the measurement of skin surface conductance it was appeared that the use of bathing emulsion tends to help retain more moisture than non-use. In conclusion, skin care treatment (use of cream or bathing emulsion) is useful for improvement of clinical symptoms and for self-medication in AD patients. (author abst.)

L6 ANSWER 7 OF 22 JICST-EPlus COPYRIGHT 2002 JST  
ACCESSION NUMBER: 971032777 JICST-EPlus  
TITLE: New raw materials and technologies for cosmetics.  
Development and application of Acetylhyaluronate for cosmetics, a novel **humectant** having an excellent skin-softening effect for stratum corneum.  
AUTHOR: OKA TAKASHI; YANAKI TOSHIO  
CORPORATE SOURCE: Shiseido Co., LTD

10/038830

SOURCE: Fragr J, (1997) vol. 25, no. 10, pp. 9-15. Journal  
Code: G0987B (Fig. 16, Ref. 18)  
CODEN: FUJAD7; ISSN: 0288-9803

PUB. COUNTRY: Japan  
DOCUMENT TYPE: Journal; Commentary  
LANGUAGE: Japanese  
STATUS: New

AB To endow **sodium hyaluronate**(HA) with precious functions, we synthesized sodium acetylhyaluronate(AcHA), which was found to have a superb moisturizing effect and has an excellent skin-softening effect. To clarify mechanism of the effect, the hydration and adsorption of AcHA for the stratum corneum were measured. The results indicated that AcHA increased the **water** content in stratum corneum and could be efficiently adsorbed on the stratum corneum. Consequently, AcHA reduced transepidermal **water** loss(TEWL) and sufficiently softened the stratum corneum. Upon the use of AcHA in a cosmetic formula, it was also observed that 0.2% AcHA-lotion could increase the **water** contents in stratum corneum, reduce the TEWL, and improve scaly dry skin condition. (author abst.)

L6 ANSWER 8 OF 22 JAPIO COPYRIGHT 2002 JPO  
ACCESSION NUMBER: 1996-291057 JAPIO  
TITLE: CATAPLASM  
INVENTOR: MIYAJIMA YOSHIHARU  
PATENT ASSIGNEE(S): YUUTOKU YAKUHIN KOGYO KK, JP (CO 463909)  
PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | ERA    | MAIN IPC       |
|-------------|------|----------|--------|----------------|
| JP 08291057 | A    | 19961105 | Heisei | (6) A61K009-70 |

JP

APPLICATION INFORMATION

ST19N FORMAT: JP1996-44028 19960207  
ORIGINAL: JP08044028 Heisei  
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 96, No. 11

AN 1996-291057 JAPIO

AB PURPOSE: To obtain a cataplasma capable of exhibiting extremely excellent skin-protecting effect without using a pharmaco dynamic component such as an antiinflammatory analgesic agent which is conventionally compounded and effective for curing xeroderma, etc., by compounding a base material having a high content of **water** with a specific **humectant** component.

CONSTITUTION: (A) A cataplasma base material (preferably, consisting of 10-20wt.% of a base material, 10-25wt.% of a polyvalent alcohol, 2-13wt.% of a **water**-soluble high molecular compound and 30-80wt.% of **water**, and having a pH of 4.2-6.4) is compounded with (B) at least one kind of **humectant** selected from (i) **sodium hyaluronate**, (ii) sodium chondroitinsulfate, (iii) a lactic acid salt, (iv) pyrrolidonecarboxylic acid, (v) urea, (vi) an aloe extract and (vii) an extract of leaves of a beefsteak plant. Further, 0.1-1wt.% of the component (ii), 0.01-0.1wt.% of the component (i) or 1-5wt.% of the component (v) is preferably used as the component B, each based on the component A. Especially, it is preferable to use the combination of the components (ii), (i) and (v) as the component B.

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L6 ANSWER 9 OF 22 JAPIO COPYRIGHT 2002 JPO  
ACCESSION NUMBER: 1996-012571 JAPIO  
TITLE: DISINFECTING LIQUID FOR EXTERNAL USE  
INVENTOR: MIYANO SHIGERU; OKUMA TAKAAKI; HINO YASUHIKO;  
YAMAZAKI EMIKO; KOMURO CHIKARA  
PATENT ASSIGNEE(S): NIPPON KAYAKU CO LTD, JP (CO 000408)  
PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | ERA    | MAIN IPC       |
|-------------|------|----------|--------|----------------|
| JP 08012571 | A    | 19960116 | Heisei | (6) A61K031-14 |

JP

APPLICATION INFORMATION

ST19N FORMAT: JP1995-53744 19950220  
ORIGINAL: JP07053744 Heisei  
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 96, No. 1

AN 1996-012571 JAPIO

AB PURPOSE: To obtain a disinfecting liquid for external use containing an alkylbenzyldimethylammonium and a **water**-soluble negatively charged polymer as essential ingredients, excellent in **humectant** properties for preventing hands from roughening.  
CONSTITUTION: This disinfecting liquid for external use comprises (A) an alkylbenzyldimethylammonium or its salt (preferably, benzalkonium chloride or benzethonium chloride) and (B) a **water**-soluble negatively charged polymer and/or its salt (preferably, hyaluronic acid or its salt) as essential ingredients, and (C) 30-65wt./vol.% an aqueous solution of ethanol as a preferable solvent. The concentrations of the ingredients are preferably 0.05-0.5 (wt./vol.)% ingredient (A), 0.001-0.3 (wt./vol.)% ingredient (B) and 30-60 (wt./vol.)% ingredient (C). The disinfecting liquid for external use comprises, e.g. 40-60 (wt./vol.)% aqueous solution of ethanol containing 0.1-0.3 (wt./vol.)% benzalkonium chloride or benzethonium chloride, 0.002-0.05 (wt./vol.)% **sodium hyaluronate** or **sodium hyaluronate** and succinylated carboxymethylchitosan.

L6 ANSWER 10 OF 22 JICST-EPlus COPYRIGHT 2002 JST

ACCESSION NUMBER: 961012948 JICST-EPlus  
TITLE: Moisturizing and Skin-softening Effect on Sodium Acetylhyaluronate.  
AUTHOR: OKA TAKASHI; YANAKI TOSHIO; YAMAGUCHI MICHIIRO  
CORPORATE SOURCE: Shiseido Co., Ltd.  
SOURCE: Nippon Kagakkai Koen Yokoshu, (1996) vol. 71st, pp. 80. Journal Code: S0493A  
ISSN: 0285-7626

PUB. COUNTRY: Japan

LANGUAGE: Japanese

STATUS: New

AB To maintain healthy and fresh skin, it is necessary to moisten sufficiently the stratum corneum. Due to aging, surroundings, physical constitution, and other factors, the stratum corneum always has a tendency to lose its normal **water** content. It is effective to apply the **humectant** to the skin for keeping the normal **water** content. In general **humectants**,

**sodium hyaluronate**(HA) has a very highly moisturizing effect. To endow HA with precious functions, we synthesized varieties of HA derivatives and evaluated their usefulness for cosmetic products. After numerous investigations for finding HA derivatives, we eventually discovered a novel HA derivative, sodium acetylhyaluronate(AcHA), which has a very highly skin-softening effect for the stratum corneum. Moreover, many physicochemical studies on AcHA showed that the hygroscopic property of AcHA is equal to that of HA. We also observed that AcHA has an effect of lowering the surface tension, an effect of holding water to the skin, an effect of improving the rough and dry skin, a very highly ethanol-solubility, and other functions. (author abst.)

L6 ANSWER 11 OF 22 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
DUPLICATE 1

ACCESSION NUMBER: 1996:273748 BIOSIS  
DOCUMENT NUMBER: PREV199698829877  
TITLE: Clinical study of ADS cream (medicated Atskin Cream) in atopic dermatitis.  
AUTHOR(S): Ikezawa, Zenroh (1); Kitamura, Kazuko; Komatsu, Taira; Sugiyama, Asami; Ohsawa, Junko  
CORPORATE SOURCE: (1) Dep. Dermatol., Yokohama City Univ. Urafune Hosp. 3-46, Urafune-cho, Minami-ku, Yokohama-City 232 Japan  
SOURCE: Skin Research, (1996) Vol. 38, No. 1, pp. 74-96.  
ISSN: 0018-1390.

DOCUMENT TYPE: Article  
LANGUAGE: Japanese  
SUMMARY LANGUAGE: Japanese; English

AB A clinical study of ADS cream (medicated Atskin cream) which is compounded of squalane and jojoba oil as the main bases, a derivative of glycyrrhetic acid and allantoin as the active ingredients, and **sodium hyaluronate** as the **humectant** was conducted in 99 patients with mild to moderate atopic dermatitis (AD) to evaluate utility. The rate of improvement which was determined from general improvement rating was 35.4% (including evaluations classified as "moderately and remarkably improved") and 78.8% (including evaluations classified as "slightly, moderately, and remarkably improved"). The rate of improvement by symptom was especially high, 78.4% and 75.0%, for dry skin and scale, respectively, and the rates for an itching sensation and scratch marks were also relatively high, 56.1% and 53.1% respectively. Adverse reactions to this cream were reported in 3 patients (3.0%), the symptoms consisting of a tingling sensation in 1 patient, itching, erythema, and papule in 1 patient, and papule in 1 patient. The rate of utility which was determined in consideration of the general improvement rating and adverse reactions was high, 42.4% (including evaluations classified as "moderately and very useful") and 75.8% (including evaluations classified as "slightly, moderately, and very useful"). To evaluate the effect of ADS cream on the physiological condition of skin in a non-invasive way, the moisture content of the stratum corneum (corneous conductance), transepidermal water loss (TWL), and skin surface morphology (VC1: a parameter showing the radial heterogeneity of a skin fissure) were determined. Apart from the above-mentioned study, 23 patients with mild to moderate AD were given ADS cream for about 4 weeks to evaluate the dermato-physiological parameters and its clinical effect. The rate of improvement which was determined from

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the general improvement rating was 43.5% (including evaluations classified as "moderately and remarkably improved") and 73.9% (including evaluations classified as "slightly, moderately, and remarkably improved"). The rate of improvement by symptom was more than 70.0% for dry skin, scale, and scratch marks, more than 60% for erythema and pauple, and more than 50% for an itching sensation. These findings roughly coincide with those obtained in the previous study (in 99 subjects). The results of dermato-physiological parameter measurement indicate an improvement in the physiological condition of the stratum corneum, as shown by a significant increase in the moisture content of the stratum corneum ( $p < 0.05$ ) and a significant decrease in fissural heterogeneity ( $p < 0.05$ ). In addition, the mean value of TWL tended to be slightly lower after use than before use, though there was no significant difference, i.e., improvement in skin surface barrier function was suggested. In conclusion, the results presented suggest that ADS cream may be useful as skin care cream intended for self-medication in AD patients because clinical symptoms, the moisture content of the stratum corneum, and skin surface morphology were improved in such patients by the use of it.

L6 ANSWER 12 OF 22 JICST-EPlus COPYRIGHT 2002 JST

ACCESSION NUMBER: 950262990 JICST-EPlus

TITLE: Special issue : Dyeing without pollution. Hyaluronic acid, which is spotlighted.

SOURCE: Kako Gijutsu, (1995) vol. 30, no. 3, pp. 163-165.  
Journal Code: G0791B (Fig. 7, Tbl. 1)

ISSN: 0386-6041

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Commentary

LANGUAGE: Japanese

STATUS: New

AB Composition, features, and physical properties of hyaluronic acid FCH of KIBUN FOOD CHEMIFA Co., Ltd. is introduced. It is polymeric sodium **hyaluronate** obtained by fermentation using streptococcus Streptococcus zooepidemicus. Hyaluronic acid is a cosmetic **humectant** with high moist retention in low humidity atmosphere, and causes no skin impediment. The application to fiber is being examined.

L6 ANSWER 13 OF 22 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

ACCESSION NUMBER: 1994-068304 [09] WPIDS

DOC. NO. CPI: C1994-030476

TITLE: Hyaluronidase inhibitors for addn. to cosmetics and quasi drugs - contain solvent extract of e.g. fruit, buds, bark roots or stems of plants.

DERWENT CLASS: B04 D21

PATENT ASSIGNEE(S): (MIKI-N) MIKIMOTO SEIYAKU KK

COUNTRY COUNT: 1

PATENT INFORMATION:

| PATENT NO   | KIND | DATE               | WEEK | LA | PG |
|-------------|------|--------------------|------|----|----|
| JP 06009371 | A    | 19940118 (199409)* |      |    | 8  |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|-----------|------|-------------|------|
|-----------|------|-------------|------|

Searcher : Shears. 308-4994

JP 06009371 A

JP 1992-187453 19920623

PRIORITY APPLN. INFO: JP 1992-187453 19920623

AN 1994-068304 [09] WPIDS

AB JP 06009371 A UPAB: 19940418

Hyaluronidase inhibitors comprise one or more of solvent extracts selected from the fruit of Terminalia chebula Retz, the rhizome of Dryopteris Crassirhizoma Nakai, bark or peel of Punica granatum L., bud of Eugenica caryophyllata (or Syzygium aromaticum), fruit of Areca catechu L., bark of Fraxinus japonica (F. lanuginosa, or F. rhynchophylla), root of Berchemica lineata D.C., bark of Wikstroemia indica C.A. Mey and stem of Ephedra sinica Stapf.

Specifically solvents employed are **water**, ethanol, or their mixts. with polyvalent alcohols. Oils, **humectants**, and other ingredients may be added and a variety of cosmetic formulations can be possible, e.g. lotion, cream, emulsion and pack.

USE/ADVANTAGE - The solvent extract, when added at about 0.01% inhibit the decompnsn. of hyaluronic acid and, therefore, are useful as additives of no toxicity to cosmetics and quasi drugs. Hyaluronic acid can hold **water** in the gap of cells and form jelly-like matrix in the tissue, thus maintaining lubricity and elasticity of the skin, blocking the influence from outside and infections of bacteria, and preventing wrinkles and roughness of the skin.

In an example, dried T. chebula (10 g) was stood in 300 ml ethanol with occasional stirring, filtered, and lyophilised to prepare an ethanol ext.. A mixt. of 0.5% olive oil, 0.5% the ethanol ext., 2.0% polyoxyethylene (20E.O.) sorbitan monostearate, 2.0% polyoxyethylene (60E.O.) hardened caster oil, 10.0% ethanol, 5.0% **Na hyaluronate** 1.0% aq. soln., and 80.0% pure **water** was made into a lotion.

Dwg. 0/0

L6 ANSWER 14 OF 22 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

ACCESSION NUMBER: 1994-272996 [34] WPIDS

DOC. NO. CPI: C1994-124852

TITLE: Novel D-galacturonic acid L-rhamnose +D-glucose contg. polysaccharide(s) - useful as **humectants**, emulsifiers, dispersion, stabilisers, foam stabilisers, and cement additives etc.

DERWENT CLASS: A11 D13 D16 D17 D21 L02

INVENTOR(S): MISAKI, A; NAKAGAWA, M; NAKANISHI, O; OKUMIYA, T; OOISO, Y; SUGIHARA, R

PATENT ASSIGNEE(S): (TKAK) TAYCA CORP

COUNTRY COUNT: 6

PATENT INFORMATION:

| PATENT NO   | KIND           | DATE     | WEEK      | LA | PG |
|-------------|----------------|----------|-----------|----|----|
| EP 613951   | A2             | 19940907 | (199434)* | EN | 17 |
|             | R: DK FR GB SE |          |           |    |    |
| JP 07090003 | A              | 19950404 | (199522)  |    | 11 |
| EP 613951   | A3             | 19950628 | (199611)  |    |    |
| US 5508190  | A              | 19960416 | (199621)  |    | 11 |
| US 5527904  | A              | 19960618 | (199630)  |    | 11 |

## APPLICATION DETAILS:

| PATENT NO   | KIND     | APPLICATION    | DATE     |
|-------------|----------|----------------|----------|
| EP 613951   | A2       | EP 1994-102795 | 19940224 |
| JP 07090003 | A        | JP 1993-308620 | 19931115 |
| EP 613951   | A3       | EP 1994-102795 | 19940224 |
| US 5508190  | A Div ex | US 1994-201698 | 19940225 |
|             |          | US 1995-404642 | 19950315 |
| US 5527904  | A        | US 1994-201698 | 19940225 |

PRIORITY APPLN. INFO: JP 1993-64681 19930301; JP 1993-207046  
19930729; JP 1993-308620 19931115

AN 1994-272996 [34] WPIDS

AB EP 613951 A UPAB: 19941013

Novel polysaccharides (I) have the following physicochemical props.;  
(a) mol.wt. 5x103 to 10x106; (b) constituent glycoses  
alpha-D-galacturonic acid, beta-L-rhamnose, and alpha-D-glucose; and  
(c) constituent glycoses joined substantially by 1,3-linkages.

USE - (I) Have excellent H<sub>2</sub>O-retaining ability which  
is almost completely unaffected by the ambient relative humidity  
(unlike e.g. Na hyaluronate). (I) also have:  
film-forming properties, when they form a colourless, transparent  
and tough film useful for packaging and coating (in partic. a film  
from deacetylated (I) has excellent tensile strength and elongation  
at break); and dispersion-stabilising properties, useful as  
low-viscosity replacements for gum arabic. (I) are also useful as  
emulsifiers, humectants, and foam stabilisers, and in  
cement mixts., etc..

Dwg.0/2

ABEQ US 5508190 A UPAB: 19960529

An isolated Azotobacter Beijerinckii TNM1 (FERM BP-4194) or a mutant  
thereof which is capable of producing polysaccharides having the  
following physicochemical properties:

- (1) a molecular weight determined by gel filtration chromatography is about 5multiplied by103 to 10multiplied by106,
- (2) the constituent glycoses are D-galacturonic acid,  
L-rhamnose and D-glucose,
- (3) the constituent glycoses are joined substantially by  
1,3-linkages, and
- (4) a configuration of D-galacturonic acid is alpha, that of  
L-rhamnose is beta and that of D-glucose is alpha.

ABEQ US 5527904 A UPAB: 19960731

Polysaccharides having the following physicochemical properties: (1)  
a molecular weight determined by gel filtration chromatography is  
about 5 x 103 to 10 x 106, (2) the constituent glycoses are  
D-galacturonic acid, L-rhamnose and D-glucose, (3) the constituent  
glycoses are joined by 1,3-linkages, and (4) a configuration of  
D-galacturonic acid is alpha, that of L-rhamnose is beta and that of  
D-glucose is alpha.

Dwg.0/2

L6 ANSWER 15 OF 22 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 95006265 EMBASE

DOCUMENT NUMBER: 1995006265

TITLE: Enhanced substantivity of hyaluronic acid on keratin

10/038830

AUTHOR: substrates via polymer complexation.  
Pavlichko J.P.; Goddard E.D.; Band P.A.; Leschiner A.  
CORPORATE SOURCE: Amerchol Corporation, 136 Talmadge Road, Edison NJ  
08818-4051, United States  
SOURCE: International Journal of Cosmetic Science, (1994)  
16/6 (227-234).  
ISSN: 0142-5463 CODEN: IJCMW  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 013 Dermatology and Venereology  
023 Nuclear Medicine  
030 Pharmacology  
037 Drug Literature Index

LANGUAGE: English  
SUMMARY LANGUAGE: English; French

AB Complexes of glycosaminoglycans and certain cationic polymers have been identified which provide utility in skin and hair care applications. The combination of biologically engineered hyaluronic acid and the cationic cellulose polymer, polyquaternium-10, results in a unique, stable, multifunctional, association complex with enhanced polymer functionality. Complexation of the anionic and cationic polysaccharide polymers renders hyaluronic acid substantive to keratin, as evidenced by zeta potential changes of the surface charge of hair via electrokinetic streaming potential measurements. Radiolabelling techniques show as much as a ten-fold increase in bound hyaluronic acid on hair after **water** rinsing. The resulting 'enhanced' substantivity of hyaluronic acid, as part of the complex, thus extends the time hyaluronic acid remains in contact with keratinous surfaces, prolonging its **humectant**, moisturizing and skin-smoothening effects.

L6 ANSWER 16 OF 22 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

ACCESSION NUMBER: 1993-392559 [49] WPIDS

DOC. NO. CPI: C1993-174610

TITLE: Lubricant for vaginal cavity - composed of polyacrylamide and glycerine together with **humectant**, bactericide and antifungal agent.

DERWENT CLASS: A96 B07 C07

PATENT ASSIGNEE(S): (OKAM-N) OKAMOTO CO LTD

COUNTRY COUNT: 1

PATENT INFORMATION:

| PATENT NO   | KIND | DATE               | WEEK | LA | PG |
|-------------|------|--------------------|------|----|----|
| JP 05294825 | A    | 19931109 (199349)* |      | 4  |    |

APPLICATION DETAILS:

| PATENT NO   | KIND | APPLICATION   | DATE     |
|-------------|------|---------------|----------|
| JP 05294825 | A    | JP 1992-98119 | 19920417 |

PRIORITY APPLN. INFO: JP 1992-98119 19920417

AN 1993-392559 [49] WPIDS

AB JP 05294825 A UPAB: 19940126

Lubricant is composed of a polyacrylamide and glycerine added with a

**humectant**, an antibacterial and an antifungal agents.

In **water**, 0.5-5.0% of a polyacrylamide, 1.0-10% glycerine, 0.01% **humectant** (e.g. **Na hyaluronate** and **Na alginate**), 0.1-0.5% antifungal agent (e.g. imidazoles and thiabenzazoles), 0.01-0.375% alkyl p-hydroxybenzoate, and 0.01-1.00% of a surfactant were added to give the lubricant jellies having 150-2000 cps.. The jellies are filled in a container together with 50-30 v/v% of CO<sub>2</sub> at 5-8 kg/cm<sup>2</sup>.

**USE/ADVANTAGE** - A lubricant for smooth coitus and vaginal cavity.

In an example, in 95.1 pts. purified **water**, 1.25 pts. polyacrylamide was dissolved in 20-30 mins. with stirring. In glycerine warmed at 65-70 deg.C, 0.025 pt. of propyl p-hydroxybenzoate and 0.075 pt. of methyl p-hydroxybenzoate were mixed portionwise in 20 mins.. In **water**, 0.05% of **Na hyaluronate**, 0.2% of a sugar ester and 0.3% of a thiabenzazole were dissolved separately. The resultant solns. were mixed gently and allowed to stand overnight to give a jelly compsn.. The compsn. was filled in a container together with CO<sub>2</sub> at 5.6 kg/cm<sup>2</sup>.

Dwg.0/0

L6 ANSWER 17 OF 22 JAPIO COPYRIGHT 2002 JPO

ACCESSION NUMBER: 1993-345711 JAPIO

TITLE: SKIN PROTECTION AGENT

INVENTOR: MASAKI HITOSHI; TAKEI MASUMI

PATENT ASSIGNEE(S): NOEVIR CO LTD, JP (CO 490382)

PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | ERA    | MAIN IPC       |
|-------------|------|----------|--------|----------------|
| JP 05345711 | A    | 19931227 | Heisei | (5) A61K007-40 |

JP

APPLICATION INFORMATION

ST19N FORMAT: JP1991-100427 19910404

ORIGINAL: JP03100427 Heisei

SOURCE: PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: C, Sect. No. 1186, Vol. 18, No. 191, P. 63 (19940404)

AN 1993-345711 JAPIO

AB PURPOSE: To provide a skin-protection agent capable of forming a tack-free **water**-insoluble film of chitosan on the skin to effectively protect the skin from chapping without lowering the operability in work.

CONSTITUTION: A **water**-insoluble chitosan film is formed on the skin by combining (A) an aqueous solution of an acid salt of chitosan or a **water**-soluble chitosan derivative selected from carboxylated compound, sulfonated compound, glycolated compound or quaternized compound of chitosan with (B) a dilute alkaline aqueous solution or an aqueous solution of a polymeric compound having charge opposite to the charge of the chitosan derivative. The agent may be incorporated with a **humectant** component such as **sodium hyaluronate**. The film gives moist feeling to the skin without causing tackiness and the lowering of the operability in work. The chitosan film can easily be removed by washing with an weakly acidic aqueous solution or an aqueous solution of an anionic substance or a cationic substance.

L6 ANSWER 18 OF 22 JAPIO COPYRIGHT 2002 JPO  
 ACCESSION NUMBER: 1990-215707 JAPIO  
 TITLE: SKIN COSMETIC  
 INVENTOR: SUZUKI ERIKO; HIRAKI JUN; FUJII MASAHIRO  
 PATENT ASSIGNEE(S): CHISSO CORP, JP (CO 000207)  
 PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | ERA    | MAIN IPC       |
|-------------|------|----------|--------|----------------|
| JP 02215707 | A    | 19900828 | Heisei | (5) A61K007-00 |

JP

APPLICATION INFORMATION  
 ST19N FORMAT: JP1989-33791 19890215  
 ORIGINAL: JP01033791 Heisei  
 SOURCE: PATENT ABSTRACTS OF JAPAN, Unexamined  
 Applications, Section: C, Sect. No. 778, Vol.  
 14, No. 522, P. 31 (19901115)

AN 1990-215707 JAPIO

AB PURPOSE: To obtain a skin cosmetic having good compatibility with **water**, no rough feeling in application to the skin and both **humectant** action and skin beautifying effects by using a lyophilized product of an aqueous solution containing hyaluronic acid (salt) and phosphate-L-ascorbin magnesium.  
 CONSTITUTION: A lyophilized product of an aqueous solution of hyaluronic acid or **sodium hyaluronate** and phosphate-L-ascorbin magnesium shown by the formula in the weight ratio of the former and the latter of 1:0.1-50 is used as a cosmetic raw material of powder side of a two-agent type cosmetic comprising toilet lotion and powder. The lyophilized product slightly causes an undissolved lump of powder compared with powder of hyaluronic acid (salt) alone, is dissolved in a shorter time than the powder and is also dissolved in a shorter time than phosphate-L-ascorbin magnesium powder or granule.

L6 ANSWER 19 OF 22 JAPIO COPYRIGHT 2002 JPO  
 ACCESSION NUMBER: 1990-134315 JAPIO  
 TITLE: BATHING AGENT  
 INVENTOR: KITA KIYOSHI  
 PATENT ASSIGNEE(S): KITA KIYOSHI, JP (IN)  
 PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | ERA    | MAIN IPC       |
|-------------|------|----------|--------|----------------|
| JP 02134315 | A    | 19900523 | Heisei | (5) A61K007-50 |

JP

APPLICATION INFORMATION  
 ST19N FORMAT: JP1988-285733 19881114  
 ORIGINAL: JP63285733 Heisei  
 SOURCE: PATENT ABSTRACTS OF JAPAN, Unexamined  
 Applications, Section: C, Sect. No. 747, Vol.  
 14, No. 37, P. 42 (19900810)

AN 1990-134315 JAPIO

AB PURPOSE: To obtain a bathing agent, improved in **humectant** effects and capable of providing glossy skin touch and keeping beautifying function by blending hyaluronic acid with other

ingredients.

CONSTITUTION: A bathing agent obtained by preparing an aqueous solution of, e.g., **sodium hyaluronate** having 100000-2000000 molecular weight, blended in 10g/l concentration, mixing and using 100ml resultant solution in 400l hot **water** or mixing and dissolving 1g powdery hyaluronic acid in 400l hot **water**. The **sodium hyaluronate** is obtained by extracting from a cockscomb or fermentation and production from starch using streptococci of the genus Streptococcus. The hyaluronic acid is mixed and used in hot **water** during bathing to cover the keratinous layer of the skin with the hyaluronic acid holding **water**. Thereby, systemic **humectant** effects are provided.

L6 ANSWER 20 OF 22 JAPIO COPYRIGHT 2002 JPO

ACCESSION NUMBER: 1990-062814 JAPIO

TITLE: POWDERY COSMETIC

INVENTOR: SUZUKI ERIKO; HIRAKI JUN; FUJII MASAHIRO

PATENT ASSIGNEE(S): CHISSO CORP, JP (CO 000207)

PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | ERA    | MAIN IPC       |
|-------------|------|----------|--------|----------------|
| JP 02062814 | A    | 19900302 | Heisei | (5) A61K007-00 |

JP

APPLICATION INFORMATION

ST19N FORMAT: JP1988-212594 19880829

ORIGINAL: JP63212594 Heisei

SOURCE: PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: C, Sect. No. 721, Vol. 14, No. 242, P. 50 (19900523)

AN 1990-062814 JAPIO

AB PURPOSE: To obtain a powdery cosmetic having **humectant** effect as well as skin-beautifying effect and giving agreeable feeling to the skin by using hyaluronic acid or **sodium hyaluronate** and an L-ascorbic acid derivative as essential components.

CONSTITUTION: The objective cosmetic contains a complex of hyaluronic acid or **sodium hyaluronate** and L-ascorbyl magnesium phosphate. The amount of the L-ascorbyl magnesium phosphate is 0.1-10 pts. per 1 pt. of hyaluronic acid. A precipitant such as methanol is added to a solution of the above mixture under stirring and the precipitate is crushed, e.g., in wet state to obtain the objective fine powder having particle diameter of 0.5-40. $\mu$ m. The cosmetic is quickly soluble in **water** or cosmetic on the palm and applicable to the skin without giving rough feeling nor entering into the pores of the skin.

L6 ANSWER 21 OF 22 JAPIO COPYRIGHT 2002 JPO

ACCESSION NUMBER: 1984-110612 JAPIO

TITLE: HAIR TREATMENT

INVENTOR: SOTOOKA NORIAKI

PATENT ASSIGNEE(S): POLA CHEM IND INC, JP (CO 323902)

PATENT INFORMATION:

| PATENT NO | KIND | DATE | ERA | MAIN IPC |
|-----------|------|------|-----|----------|
|-----------|------|------|-----|----------|

10/038830

JP 59110612 A 19840626 Showa (3) A61K007-06

JP

APPLICATION INFORMATION

ST19N FORMAT: JP1982-219686 19821215  
ORIGINAL: JP57219686 Showa  
SOURCE: PATENT ABSTRACTS OF JAPAN, Unexamined  
Applications, Section: C, Sect. No. 247, Vol. 8,  
No. 2251, P. 92 (19841016)

AN 1984-110612 JAPIO

AB PURPOSE: To provide a treatment containing a hyaluronic acid having specific molecular weight, capable of restoring and protecting damaged hair, improving and keeping the set hair, and giving glossiness to the hair.

CONSTITUTION: Hyaluronic acid having a molecular weight of 500,000-2,000,000 and/or its salt, especially preferably **sodium hyaluronate** is added to a hair treatment in an amount of 0.005-2wt%. The treatment is preferably the one containing 2-5wt% of **humectant**, 3-30wt% of lubricant (preferably 5-20wt% of polar lubricant or 5-30wt% of non-polar lubricant), 0-5wt% of surface active agent and 95-15wt% of **water** as essential components, and having a pH of 4-10, especially 5-9.

L6 ANSWER 22 OF 22 JAPIO COPYRIGHT 2002 JPO

ACCESSION NUMBER: 2000-264814 JAPIO  
TITLE: SKIN LOTION  
INVENTOR: ISHIDA MISAKI; SATOU SAORI; HAYASHI SHINJI  
PATENT ASSIGNEE(S): NOF CORP  
PATENT INFORMATION:

| PATENT NO      | KIND | DATE     | ERA    | MAIN IPC   |
|----------------|------|----------|--------|------------|
| JP 2000264814A |      | 20000926 | Heisei | A61K007-00 |

JP

APPLICATION INFORMATION

ST19N FORMAT: JP1999-071251 19990317  
ORIGINAL: JP11071251 Heisei  
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined  
Applications, Vol. 2000

AN 2000-264814 JAPIO

AB PROBLEM TO BE SOLVED: To obtain a skin lotion having a light touch at the time of use, without causing stickiness even after the use, excellent in **humectant** effects and persistence of the **humectant** effects and improving effects on skin roughening and further-in wrinkle eliminating effects, etc., by including an extracted essence of Akebiae Caulis and acidic mucopolysaccharides in a specific proportion.

SOLUTION: This skin lotion is obtained by including 0.00005-2 wt.% of an extracted essence of Akebiae Caulis expressed in terms of a dry residue and (B) 0.001-3 wt.% of acidic mucopolysaccharides such as **sodium hyaluronate** in &ge;1/100 weight ratio of the ingredients A/B. The ingredient A is prepared by directly thermally refluxing a lianous stem of the Akebiae Caulis together with **water**, etc., or dipping the lianous stem in **water**, etc., or drying the lianous stem and then thermally refluxing the dried lianous stem together with **water**,

etc., or dipping the dried lianous stem in water, etc. The skin lotion is excellent in stability with time and even restoring properties from preservation at low temperatures.

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FILE 'REGISTRY' ENTERED AT 15:10:09 ON 04 APR 2002  
E BUTYLENE GLYCOL/CN 5

Claims 4-8

L7 3 S E3

=> e peg8 dimethicone/cn 5

E1 1 PEG2 PROTEIN KINASE/CN  
E2 1 PEG2 PROTEIN KINASE (XENOPUS LAEVIS CLONE XLEG265) /CN  
E3 0 --> PEG8 DIMETHICONE/CN  
E4 2 PEGA/CN  
E5 1 PEGA 200/CN

=> e "peg 8 dimethicone"/cn 5

E1 1 PEG 7M/CN  
E2 1 PEG 8 DILAURATE/CN  
E3 0 --> PEG 8 DIMETHICONE/CN  
E4 1 PEG 8 STEARATE/CN  
E5 1 PEG 8000/CN

=> e "peg-8 dimethicone"/cn 5

E1 1 PEG-6 OLEATE/CN  
E2 1 PEG-6 PALMITATE/CN  
E3 0 --> PEG-8 DIMETHICONE/CN  
E4 1 PEG-BP 30/CN  
E5 1 PEG-DESMODUR W COPOLYMER/CN

=> e polyethylene glycol 8 dimethicone/cn 5

E1 1 POLYETHYLENE GLYCOL 4000 MONOSTEARATE/CN  
E2 1 POLYETHYLENE GLYCOL 4000-VINYL ACETATE-ACRYLIC ACID CO  
POLYMER/CN  
E3 0 --> POLYETHYLENE GLYCOL 8 DIMETHICONE/CN  
E4 1 POLYETHYLENE GLYCOL 8-HYDROXYQUINOLINE ETHER/CN  
E5 1 POLYETHYLENE GLYCOL ABIETATE/CN

=> e polyethylene glycol dimethicone/cn 5

E1 1 POLYETHYLENE GLYCOL DIMETHACRYLATE-VINYL PYRROLIDONE CO  
POLYMER/CN  
E2 1 POLYETHYLENE GLYCOL DIMETHACRYLATE-VINYL PYRROLIDONE PO  
LYMER/CN  
E3 0 --> POLYETHYLENE GLYCOL DIMETHICONE/CN  
E4 1 POLYETHYLENE GLYCOL DIMETHOXYMETHYL SILEYL PROPYL ETHER A  
CETATE/CN  
E5 1 POLYETHYLENE GLYCOL DIMETHYL 2-(5-CARBOXYPENTYLAMINO)-  
S-TRIAZINE-4,6-DIYL ETHER BARIUM SALT/CN

=> e "dimethicone, polyethylene glycol"/cn 5

E1 1 DIMETHICONE, MIXT. WITH DI-ME ME HYDROGEN POLYOXYALKYL  
ENE POLYSILOXANES/CN  
E2 1 DIMETHICONE, MIXT. WITH PANCREATIN/CN  
E3 0 --> DIMETHICONE, POLYETHYLENE GLYCOL/CN  
E4 1 DIMETHICONE, POLYMER WITH 2-PROPENOIC ACID/CN  
E5 1 DIMETHICONE, POLYMER WITH AZIRIDINE, GRAFT/CN

=> e "dimethicone, peg"/cn 5

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E1 1 DIMETHICONE, MIXT. WITH DI-ME ME HYDROGEN POLYOXYALKYL  
ENE POLYSILOXANES/CN  
E2 1 DIMETHICONE, MIXT. WITH PANCREATIN/CN  
E3 0 --> DIMETHICONE, PEG/CN  
E4 1 DIMETHICONE, POLYMER WITH 2-PROPENOIC ACID/CN  
E5 1 DIMETHICONE, POLYMER WITH AZIRIDINE, GRAFT/CN

(FILE 'CAPLUS' ENTERED AT 15:22:29 ON 04 APR 2002)

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON WATER/CN  
L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON "SODIUM HYALURONATE"/CN  
L3 686 SEA FILE=CAPLUS ABB=ON PLU=ON (L1 OR WATER OR H2O) AND  
(L2 OR (NA OR SODIUM) (W) HYALURONATE)  
L7 3 SEA FILE=REGISTRY ABB=ON PLU=ON "BUTYLENE GLYCOL"/CN  
L8 113 SEA FILE=CAPLUS ABB=ON PLU=ON L3 AND (L7 OR BUTYLENE  
GLYCOL)  
L10 156 SEA FILE=CAPLUS ABB=ON PLU=ON (DIMETHICONE OR DI  
METHICONE) (S) (PEG8 OR PEG OR (POLYETHYLENE OR POLY  
ETHYLENE) (W) GLYCOL)  
L11 0 SEA FILE=CAPLUS ABB=ON PLU=ON L8 AND L10

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,  
PICTUS-PLUS, JAPIO' ENTERED AT 15:24:38 ON 04 APR 2002)

L12 1 S L11  
L13 1 S L12 NOT L5  
  
L13 ANSWER 1 OF 1 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD  
ACCESSION NUMBER: 2000-256137 [22] WPIDS  
DOC. NO. CPI: C2000-078103  
TITLE: Solid formulation for improving bioavailability of  
poorly water-soluble drugs comprises the  
drug in an oil and/or fatty acid dispersed in a  
water-soluble polyol matrix.  
DERWENT CLASS: A96 B05 B07  
INVENTOR(S): LEE, B J  
PATENT ASSIGNEE(S): (WONJ-N) WON JIN BIOPHARMA CO LTD  
COUNTRY COUNT: 24  
PATENT INFORMATION:

| PATENT NO   | KIND | DATE     | WEEK      | LA | PG |
|---|------|----------|-----------|----|----|
| WO 2000000179   | A1   | 20000106 | (200022)* | EN | 67 |
| RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE |      |          |           |    |    |
| W: AU CA CN JP US   |      |          |           |    |    |
| AU 9946556  | A    | 20000117 | (200026)  |    |    |
| KR 2000006503   | A    | 20000125 | (200063)  |    |    |

APPLICATION DETAILS:

| PATENT NO     | KIND | APPLICATION   | DATE     |
|---------------|------|---------------|----------|
| WO 2000000179 | A1   | WO 1999-KR341 | 19990628 |
| AU 9946556    | A    | AU 1999-46556 | 19990628 |
| KR 2000006503 | A    | KR 1999-24437 | 19990626 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|-----------|------|-----------|
|-----------|------|-----------|

10/038830

AU 9946556 A Based on WO 200000179

PRIORITY APPLN. INFO: KR 1999-24437 19990626; KR 1998-24563  
19980627

AN 2000-256137 [22] WPIDS

AB WO 200000179 A UPAB: 20000508

NOVELTY - A solid dispersed formulation for poorly **water**-soluble drugs is made by dispersing the drug in an oil and/or fatty acid and mixing the dispersion with a **water**-soluble polyol matrix and drying the mixture.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for medicines prepared using the novel solid.

USE - The composition is useful for enhancing the bioavailability of poorly **water**-soluble drugs.

ADVANTAGE - The novel composition provides improved solubility in the gastrointestinal tract giving a great increase in bioavailability. Formulation does not require the use of organic solvents.

Dwg.0/5

FILE 'REGISTRY' ENTERED AT 15:26:15 ON 04 APR 2002

L14 2 S (ALLANTOIN OR PANTHENOL)/CN

FILE 'CAPLUS' ENTERED AT 15:26:19 ON 04 APR 2002

L15 6 S L8 AND (L14 OR ALLANTOIN OR PANTHENOL)

L16 6 S L15 NOT L4

L16 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:873184 CAPLUS

DOCUMENT NUMBER: 136:10924

TITLE: Massage cosmetics containing polymers and oils

INVENTOR(S): Hata, Minako

PATENT ASSIGNEE(S): Kosei Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| JP 2001335460 | A2   | 20011204 | JP 2000-160489  | 20000530 |

AB This invention relates to cosmetic compns. for massaging to provide skin moisturizing and emollient effects. The compns. comprise (1) acrylamide-2-acrylamido-2-methylpropanesulfonic-acid copolymer (I) 0.03-0.5 %, (2) liq. oils 0.1-50 %, (3) locust bean gum 0.01-0.5 %, (4) xanthan gum 0.01-0.5 %, and (5) nonionic surfactants 0.1-10 %, where the wt. ratio of (3)/(4) being 1/10 - 10/1. A massage cream contained **Na hyaluronate** aq. soln. 5, 1,3-  
**butylene glycol** 10, glycerin 5, ethanol 5, locust bean gum 0.1, xanthan gum 0.1, Carbopol 940 0.05, NaOH 0.02, I (40 %) 0.75, D-**panthenol** 1, seaweed ext. 1, caffeine 0.1, polyoxyethylene sorbitan monooleate 1, sorbitan sesquioleate 1, paraffin oils 10, perfumes 1, and distd. **water** q.s. to 100 %.

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L16 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2001:371547 CAPLUS  
DOCUMENT NUMBER: 134:357402  
TITLE: Cosmetics containing collagens and **water**-soluble polymers  
INVENTOR(S): Ozaki, Tadaaki; Matsuda, Norio; Yoshioka, Takashi; Kado, Takayuki; Sugasaki, Mitsuhiko; Oka, Hiroko  
PATENT ASSIGNEE(S): Iwase Cosfa Co., Ltd., Japan; Nippon Rikagaku Yakuhin Co., Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| AB | JP 2001139448   | A2   | 20010522 | JP 1999-322995  | 19991112 |
| AB | This invention relates to transparent cosmetic compns. comprising a stable combination of <b>water-sol.</b> collagen type I and <b>water-sol.</b> polymers in a wide range of pH. A moisturizing pack contained collagen type I 10, montmorillonite 3, Na CMC 0.2, hydroxyethyl cellulose 0.1, polyoxyethylene sorbitan monooleate 0.5, 1,3-butylene glycol 6, citric acid 0.2, talc 20, kaolin 7, titania 5, <b>Na hyaluronate</b> 0.005, <b>allantoin</b> 0.1, Na citrate 1.5, lavender ext. 0.1, methylparaben q.s., and distd. <b>water</b> to 100 %. |      |          |                 |          |
| IT | 9067-32-7, <b>Sodium hyaluronate</b><br>RL: BUU (Biological use, unclassified); BIOL (Biological study);<br>USES (Uses)<br>(cosmetics contg. collagens and <b>water-sol.</b> polymers)  |      |          |                 |          |

L16 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2000:14983 CAPLUS  
DOCUMENT NUMBER: 132:83650  
TITLE: Solid dispersed preparation of poorly **water-soluble** drug containing oil, fatty acid or mixtures thereof  
INVENTOR(S): Lee, Beom Jin  
PATENT ASSIGNEE(S): Won Jin Biopharma Co., Ltd., S. Korea  
SOURCE: PCT Int. Appl., 67 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

|                        | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|---|------|----------|-----------------|------------|
|                        | WO 2000000179   | A1   | 20000106 | WO 1999-KR341   | 19990628   |
|                        | W: AU, CA, CN, JP, US<br>RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |            |
|                        | KR 2000006503   | A    | 20000125 | KR 1999-24437   | 19990626   |
|                        | AU 9946556  | A1   | 20000117 | AU 1999-46556   | 19990628   |
| PRIORITY APPLN. INFO.: |   |      |          | KR 1998-24563   | A 19980627 |

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KR 1999-24437 A 19990626  
WO 1999-KR341 W 19990628

AB Disclosed is a solid dispersed prepn. for poorly **water**-sol. drugs, which is prep'd. by dissolving or dispersing the poorly **water-sol.** drugs in an oil, a fatty acid or a mixt. thereof, mixing the soln. or dispersion in a **water-sol.** polyol matrix and drying the mixt. The solid dispersed prepn. can be formulated into a power formulation or a granule formulation. The solid dispersed prepn. is improved in the solv. of poorly **water-sol.** drugs in the gastro-intestinal tract, resulting in a great increase in the bioavailability of the drugs. In addn., the solid dispersed prepn. gives the pharmaceutical solns. to the problems that the conventional semi-solid or liq. prepns. possess, enabling medicinally effective, poorly **water-sol.** compds. to be formulated, molded and processed, quickly and in an economically favorable manner without use of any org. solvent. Examples are given for emulsions contg. mixts. of waxes, oils, and aq. phase.

IT 81-13-0, Panthenol 107-88-0,  
1,3-Butanediol 9067-32-7, Sodium  
**hyaluronate**  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(solid dispersed prepn. of poorly **water-sol.** drug  
contg. oils and fatty acid or mixts.)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN  
THE RE FORMAT

L16 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1998:527045 CAPLUS  
DOCUMENT NUMBER: 129:166083  
TITLE: Sunscreen compositions containing a UV-A  
dibenzoylmethane derivative and an alkyl  
salicylate stabilizer/solubilizer  
INVENTOR(S): Bonda, Craig A.; Hopper, Steven P.  
PATENT ASSIGNEE(S): The C. P. Hall Company, USA  
SOURCE: U.S., 8 pp. Cont.-in-part of U.S. Ser. No.  
752,585.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| US 5788954             | A    | 19980804 | US 1997-967121  | 19971112    |
| US 5783173             | A    | 19980721 | US 1996-752585  | 19961121    |
| AU 9745324             | A1   | 19980528 | AU 1997-45324   | 19971120    |
| AU 728369              | B2   | 20010111 |                 |             |
| US 5849273             | A    | 19981215 | US 1997-984765  | 19971204    |
| US 6350894             | B1   | 20020226 | US 2000-523336  | 20000310    |
| PRIORITY APPLN. INFO.: |      |          | US 1996-752585  | A2 19961121 |
|                        |      |          | US 1997-967121  | A2 19971112 |
|                        |      |          | US 1998-7503    | A1 19980115 |

OTHER SOURCE(S): MARPAT 129:166083  
AB A sunscreen compn. contg. a UV-A dibenzoylmethane deriv., such as 4-(1,1-dimethylethyl)-4'-methoxydibenzoylmethane (PARSOL 1789), and

10/038830

an alkyl salicylate stabilizer/solubilizer for the dibenzoylmethane deriv. is disclosed. A sunscreen contained octyl methoxycinnamate 1-10, butyloctyl salicylate 1-15, hexyldecyl benzoate & butyloctyl benzoate 0-10, avobenzene 0.5-5, polyvinylpyrrolidone eicosene copolymer 0-2, dimethicone copolyol 0-2, tocopheryl acetate 0-2, retinyl palmitate 0-2, bisabolol 0-2, sorbitan oleate 0-5, acrylate/C10-30 alkyl acrylate crosspolymer 0.1-5, silica 0-5, **water** 50-80, xanthan gum 0-2, cetyl hydroxyethyl cellulose 0-2, glycerin 0-10, **butylene glycol** 0-5, phenylethanol, methylparaben, ethylparaben, propylparaben, and butylparaben 0-5, **panthenol** 0-5, triethanolamine 0-1, preservative 0-1, green tea ext. 0-2, biol. ext. selected 0-5 from horsetail ext., myrrh ext., sunflower seed ext., wheat germ ext., and mixts. thereof 0-5, **sodium hyaluronate** 0-1, and polyacrylamide 0-2%.

IT 81-13-0, **Panthenol**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(sunscreen compns. contg. UV-A dibenzoylmethane deriv. and alkyl salicylate stabilizer/solubilizer)

L16 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1992:180944 CAPLUS

DOCUMENT NUMBER: 116:180944

TITLE: Topical preparations containing resorcin glycosides

INVENTOR(S): Hamazaki, Taihei; Matsugami, Michio; Takenochi, Masanori; Utsugi, Koji; Nakano, Hiroyuki

PATENT ASSIGNEE(S): Pola Chemical Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 04001116 | A2   | 19920106 | JP 1990-99919   | 19900416 |
| JP 2860902  | B2   | 19990224 |                 |          |

OTHER SOURCE(S): MARPAT 116:180944

AB Topical' prepns., which inhibit melanin formation, contain m-ROC6H4OH (R = pentosyl, hexosyl, amino sugar residue, uronic acid residue, etc.). Vaseline 5.0, liq. paraffin 15.0, cetanol 5.0, glycerin monostearate 2.0, polyoxyethylene sorbitan monostearate 2.0, Bu p-hydroxybenzoate 0.2, perfumes 0.2, 1,3-**butylene glycol** 10.0, di-Na edetate 0.1, H2O 57.5, and m-hydroxyphenyl-.beta.-D-glycoside (I) 3.0 wt. parts were mixed to give a skin cream, which showed skin-lightening effect and wound healing promotion. I is nonirritating.

IT 97-59-6, **Allantoin** 9067-32-7,

**Sodium hyaluronate**

RL: BIOL (Biological study)

(skin-lightening cosmetics contg. resorcin glycosides and)

L16 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1988:636757 CAPLUS

DOCUMENT NUMBER: 109:236757

10/038830

TITLE: p-Hydroxybenzoate ester-free cosmetics  
containing 1,3-butylene glycol  
, surfactants, and organic acids  
INVENTOR(S): Fujii, Masashi; Ito, Minoru  
PATENT ASSIGNEE(S): Noevir Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 63188610 | A2   | 19880804 | JP 1987-21540   | 19870130 |

AB The title cosmetics, which are not irritating to the skin and have good bactericidal activities, contain 3-20% 1,3-butylene glycol (I) and .gtoreq.1 compd. chosen from surfactants (inorg.-org. balance 1.20-2.00) and org. acids. A cosmetic comprising glycerin 3.00, I 2.00, allantoin 0.10, Na pyrrolidonecarboxylate 0.10, Na hyaluronate 0.10, lactic acid (II) 0.10, flavoring material 0.10, and 94.45% H<sub>2</sub>O showed no irritation to the skin and complete control for Escherichia coli, Pseudomonas aeruginosa, P. cepacia, Staphylococcus aureus, but a control contg. Me p-hydroxybenzoate instead of II produced skin irritation.

IT 107-88-0, 1,3-Butylene glycol

RL: BIOL (Biological study)  
(cosmetics contg. surfactant and org. acid and)

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 15:27:17 ON 04 APR 2002)

L17 1 S L15

L18 0 S L17 NOT (L5 OR L12)

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